



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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September 17, 1999

Mr. Larry Tucker
Engineering Field Activity, NW
Naval Facilities Engineering Command
19917 7th Avenue NE
Poulsbo, WA 98370-7570

Dear Mr. Tucker:

Re: Draft Sampling and Analysis Work Plan, Site Hazard Assessment,
Bremerton Auto Wrecking Yard Landfill, Gorst, Washington

The Washington State Department of Ecology (Ecology) has completed its review of the above referenced document and is providing the following general comments.

At the inception of this project, Ecology provided EFA NW with copies of the SHA guidance. It was therefore assumed that the guidance would have been followed in its entirety thus facilitating the WARM ranking. Although the SHA Workplan does include many of the required elements, it is still missing a few. Specifically, there is no investigation into the air-borne pathway, there is no assessment of the type and mass of toxins that may reside in the landfill, and the only evaluation of groundwater is at existing monitoring wells.

Without providing data in these areas, the WARM ranking will be meaningless, if the scoring can even be done. The goal of a SHA is to take a look at all contaminants and pathways at a potential site. When this is done and nothing is found to cause concern, the site can be truly declared to pose no risk. However, if the assessment is not adequately thorough, then no conclusion can be reached. Ecology will provide suggestions as to how to address the work plan's deficiencies in the "specific comments" enclosed.

The Kitsap Health District has had a keen interest in resolving the issues at this site. Ecology was surprised that they were not provided the opportunity to review this draft. It is recommended that they be offered the opportunity to participate in this project in at least a limited manner.

Larry Tucker
September 17, 1999
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I am interested in your response to these comments. Please contact me at your earliest convenience to clarify and/or resolve the issues raised here.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter C. Brooks", with a long, sweeping horizontal line extending to the right.

Peter C. Brooks, P.E.
Toxics Cleanup Program

PB:gj
Enclosure

Specific Comments on "Draft Sampling and Analysis Work Plan, Site Hazard Assessment, Bremerton Auto Wrecking Yard Landfill, Gorst, Washington"

Page 8. Soil Sampling – Although it is conceded on page 3 in the section titled "Potential Site Contaminants" that hazardous chemicals may have found their way into the landfill, no attempt is planned to sample or to characterize the landfill contents in any physical way. Ecology appreciates the Navy's concern regarding the stability of the landfill. However, it will be difficult, if not impossible, to estimate the risk that the landfill poses to human health and the environment without having even a rough estimate of the mass and type of contaminants in the landfill. It is recommended that the Navy reconsider intrusive sampling in the landfill mass.

Page 8. Soil Sampling – The air pathway is not addressed in the work plan. Although it is reasonable to assume that the vegetation now growing on the landfill soil cover will reduce wind dispersal of soil, it is still necessary to determine whether the soil is contaminated. Samples of the soil comprising the landfill cover should be obtained and analyzed for those parameters already specified for other soil samples. In addition, soil grain size distribution should be determined so that the potential for ~~wide~~^{wind} dispersal can be estimated.

Page 9. Surface Water and Freshwater Sediment Quality Investigation – The plan proposes to collect sediment in a grid based off of the location of the water sample. Sediment should be collected in areas of deposition, not active erosion. Either the water sampling location should be selected to make this possible, or the sediment sampling locations should be selected independently of the water samples. Also, besides the proposed chemical analyses, the sediment samples should be analyzed for total organic carbon and grain size distribution. These parameters also have an effect on the health of aquatic benthic organisms and any significant change caused by the landfill needs to be quantified.

Flows at this portion of Gorst Creek are quite variable. Ecology recommends measuring the stream flow, temperature, and dissolved oxygen at the time of sampling for comparative purposes.

Page 9. Groundwater Quality Investigation – The plan proposes to only sample and analyze water from three Bremerton Water District (BWD) monitoring wells. Ecology has a concern regarding the sampling of only these locations for groundwater. The nearest well (BR-11) is approximately 600 feet down gradient (topographically) and 500 feet lateral to the creek channel. The furthest well (BR-9) is over ¾ mile down gradient and over 600 feet lateral to the stream. Although the exact direction of groundwater flow is not indicated in the plan, it is logical to assume that it flows generally in the same direction as the creek. It is possible that, even if there was a plume, these wells may not be located to intercept the contaminated water. Ecology recommends the placement of at least one (and preferable more) well(s) in a location likely to intercept groundwater that has flowed under the landfill.

It is not clear from the work plan whether there are any drinking water wells down gradient of the landfill that could be affected by contaminants emanating from the landfill. If there are, then these wells need to be included in the assessment.

Besides sampling down gradient of the landfill, at least one groundwater sampling location should be located up gradient to establish groundwater quality unaffected by the landfill.

Page 11. Groundwater Sampling Procedures – The plan states that the water level will be referenced to the top of the well casing. It is requested that the elevation of the casing above grade be measured and recorded to facilitate comparison of the data between wells.

Page 23. Data Management Plan – Ecology requests that data collected be submitted consistent with Ecology's electronic data submittal guide. This will facilitate importation of the data into Ecology's Environmental Information Management system.

Page 25. Health and Safety Plan – Ecology has not reviewed the Health and Safety Plan (Section 4.0) and thus no comments on it.